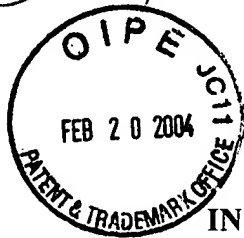


1641

Emory



PATENT

Attorney Docket No.: A-67209-2/DJB/RMS/DCF/NHT

Attorney File No.: 469420-18

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

WALT *et al.*

Serial No. 09/786,896

Filing Date: September 10, 1999

For: *Target Analyte Sensors Utilizing
Microspheres*

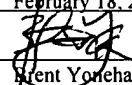
Examiner: Not Yet Assigned

Group Art Unit: 1641

CERTIFICATE OF MAILING

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Dated: February 18, 2004

Signed: 
Brent Yonehara

**INFORMATION DISCLOSURE STATEMENT
AND
STATEMENT OF RELATEDNESS**

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Sir:

In satisfaction of the duty of disclosure under 37 C.F.R. § 1.56, and in accordance with the provisions of 37 C.F.R. §§ 1.97 and 1.98, Applicants wish to draw the attention of the U.S. Patent and Trademark Office to the references cited on the accompanying form PTO/SB/8A. Copies of these references are enclosed.

Further, Applicant wishes to draw the attention of the U.S. Patent and Trademark Office to the references cited marked with an asterisk (*), previously disclosed in the following related U.S. Application Serial No. 09/151,877, filed September 11, 1998 (now Patent No. 6,327,410 B1) – upon which the instant application relies for its priority date. Since copies of these

references were provided either by Applicants or the Examiner, in accordance with 37 C.F.R. § 1.98(d), no copies of these references are enclosed.

Further, in satisfaction of the duty of disclosure under 37 C.F.R. § 1.56, and as required by M.P.E.P. § 2001.06(b), Applicant notes that the present application is related to the following pending patent applications:

1. U.S.S.N. 09/816,651, filed March 26, 2001; U.S.S.N. 09/840,012, filed April 20, 2001; U.S.S.N. 09/925,292, filed August 8, 2001;
2. U.S.S.N. 08/944,850, filed October 6, 1997; U.S.S.N. 09/287,593, filed April 6, 1999; U.S.S.N. 10/398,157, filed April 1, 2003;
3. U.S.S.N. 09/979,247, filed April 15, 2002; U.S.S.N. 10/334,416, filed December 31, 2002;
4. U.S.S.N. 09/189,543, filed November 10, 1998; U.S.S.N. 09/344,526, filed June 24, 1999; U.S.S.N. 10/187,321, filed June 28, 2002.

Nothing herein shall constitute an admission concerning the contents of any of the cited references, nor shall the inclusion of a reference herein be considered an admission that the reference constitutes prior art against the invention claimed in the above-identified application. Submission of the present document shall not be construed as an admission that a search has been made or that better art does not exist.

As far as is known to the undersigned, this Information Disclosure Statement is being filed within three months of the filing date of a national application, within three months of the date of entry of the national state in an international application, or before the mailing date of a

Serial No. 09/786,896

Filing Date: September 10, 1999

first Office Action on the merits as set forth in 37 C.F.R. § 1.97(b), and therefore no fee is required.

While no fee is believed to be due, if this belief is in error the Commissioner is authorized to charge any additional fees, including extension fees or other relief which may be required, or credit any overpayment to Deposit Account No. 50-2319 (Our Order No. 469420-18 [A-67209-2/DJB/RMS/DCF/NHT]).

Respectfully submitted,

DORSEY & WHITNEY LLP

Dated: 2/17/2004
Customer Number: 32940
Dorsey & Whitney LLP
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BY:

David C. Foster
David C. Foster, Reg. No. 44,685 for
Robin M. Silva, Reg. No. 38,304

Filed under 37 C.F.R. § 1.34(a)

Attachments : Form PTO/SB/8A, Substitute for form 1449
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23 cited references

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STATEMENT BY APPLICANT**

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Sheet

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of

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Complete if Known

Application Number	09/786,896
Filing Date	January 16, 2002
First Named Inventor	WALT, David
Group Art Unit	1641
Examiner Name	Not Yet Assigned
Attorney Docket Number	A-67209-2/DJB/RMS/DCF/NHT (469420-18)

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	U.S. Patent Document Number-Kind Code* (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
	A1 *	4,200,110	04-29-1980	Peterson et al.	
	A2 *	4,499,052	02-12-1985	Fulwyer	
	A3 *	4,682,895	07-28-1987	Costello	
	A4 *	4,785,814	11-22-1988	Kane	
	A5 *	4,822,746	04-18-1989	Walt	
	A6 *	4,824,789	04-25-1989	Yafuso et al.	
	A7 *	4,999,306	03-12-1999	Yafuso et al.	
	A8 *	5,002,867	03-26-1991	Macevicz	
	A9 *	5,028,545	07-02-1991	Soini	
	A10 *	5,105,305	04-14-1992	Betzig et al.	
	A11 *	5,114,864	05-19-1992	Walt	
	A12 *	5,132,242	07-21-1992	Cheung	
	A13 *	5,143,853	09-01-1992	Walt	
	A14 *	5,194,300	03-16-1993	Cheung	
	A15 *	5,244,636	09-14-1993	Walt et al.	
	A16 *	5,244,813	09-14-1993	Walt et al.	
	A17 *	5,250,264	10-05-1993	Walt et al.	
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	A19 *	5,254,477	10-19-1993	Walt	
	A20 *	5,298,741	03-29-1994	Walt et al.	
	A21 *	5,302,509	04-12-1994	Cheeseman	
	A22 *	5,320,814	06-14-1994	Walt et al.	
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	A24 *	5,380,489	01-10-1995	Sutton et al.	
	A25 *	5,435,724	07-25-1995	Goodman et al.	
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	A33 *	5,565,324	10-15-1996	Still et al.	
	A34 *	5,573,909	11-12-1996	Singer et al.	

Examiner
SignatureDate
Considered

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STATEMENT BY APPLICANT**

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Sheet

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of

4

Complete if Known

Application Number	09/786,896
Filing Date	January 16, 2002
First Named Inventor	WALT, David
Group Art Unit	1641
Examiner Name	Not Yet Assigned
Attorney Docket Number	A-67209-2/DJB/RMS/DCF/NHT (469420-18)

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	A35 *	5,633,972	05-27-1997	Walt et al.	
	A36 *	5,639,603	06-17-1997	Dower et al.	
	A37 *	5,656,241	08-17-1997	Seifert et al.	
	A38 *	5,679,524	10-21-1997	Nikiforov et al.	
	A39 *	5,690,894	11-25-1997	Pinkel et al.	
	A40 *	5,814,524	09-29-1998	Walt et al.	
	A41 *	5,840,256	11-24-1998	Demers et al.	
	A42 *	5,854,684	12-29-1998	Stabile et al.	
	A43 *	5,858,732	01-12-1999	Solomon et al.	
	A44	5,888,723	03-30-1999	Sutton et al.	
	A45	6,023,540	02-08-2000	Walt et al.	
	A46 *	6,051,380	04-18-2000	Sosnowski et al.	
	A47 *	6,074,754	06-13-2000	Jacobsen et al.	
	A48 *	6,083,763	07-04-2000	Balch	
	A49 *	6,172,218 B1	01-09-2001	Brenner et al.	
	A50	6,266,459 B1	07-24-2001	Walt et al.	
	A51	6,406,845 B1	06-18-2002	Walt et al.	
	A52	6,429,027 B1	08-06-2002	Chee et al.	
	A53	6,482,593 B2	11-19-2002	Walt et al.	
	A54	6,544,732 B1	04-08-2003	Chee et al.	

FOREIGN PATENT DOCUMENTS

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	B1 *	EP 0 269 764 A1	06-08-1988	Molecular Biosystems Inc.		
	B2	EP 0 392 546 A2	10-17-1990	Ro Inst Za Molekularnu Genetik		
	B3 *	EP 0 478 319 A1	04-10-1992	Tokyo Shibaura Co.		
	B4 *	EP 0 723 146 A1	07-24-1996	SRI International		
	B5 *	WO 89/11101 A1	11-16-1989	Holmes		
	B6 *	WO 93/02360 A1	02-04-1993	Transmed Biotech Inc.		
	B7 *	WO 96/03212	02-08-1996	Sydney Brenner		
	B8 *	WO 97/14028 A1	04-17-1997	Luminex Corporation		

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STATEMENT BY APPLICANT**

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Sheet **3** of **4**

Application Number	09/786,896
Filing Date	January 16, 2002
First Named Inventor	WALT, David
Group Art Unit	1641
Examiner Name	Not Yet Assigned
Attorney Docket Number	A-67209-2/DJB/RMS/DCF/NHT (469420-18)

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	B9	WO 97/40385 A1	10-30-1997	Michael Seul		
	B10 *	WO 98/13523 A1	04-02-1998	Pyrose-Quencing AB		
	B11	WO 98/40726 A1	09-17-1998	Trustees of Tufts College		
	B12 *	WO 98/50782	11-12-1998	Trustees of Tufts College		
	B13	WO 98/53093 A1	11-26-1998	Bioarray Solutions LLC		
	B14	WO 98/53300 A2	11-26-1998	Lynx Therapeutics, Inc.		
	B15 *	WO 99/18434 A1	04-15-1999	Trustees of Tufts College		
	B16 *	WO 99/60170 A1	11-25-1999	Hyseq, Inc.		
	B17 *	WO 99/67414 A1	12-16-1999	Glaxo Group Ltd.		
	B18 *	WO 99/67641 A2	12-29-1999	Illumina, Inc.		
	B19 *	WO 00/13004 A2	03-09-2000	Trustees of Tufts College		
	B20 *	WO 00/16101 A2	03-23-2000	Trustees of Tufts College		

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	C1 *	ABEL, A.P., et al., "Fiber-optic evanescent wave biosensor for the detection of oligonucleotides," <i>Anal. Chem.</i> 68(17):2905-2912 (Sep. 1996).	
	C2 *	ANON., "Fluorescent Microspheres," Tech. Note 19, Bangs Laboratories: Fisher, IN (Feb. 1997).	
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	C4 *	BANGS, L.B., "Immunological Applications of Microspheres," The Latex Course, Bangs Laboratories: Carmel, IN (Apr. 1996).	
	C5	BARNARD, S.M., et al., "A Fibre-Optic Chemical Sensor with Discrete Sensing Sites," <i>Nature</i> 353:338-340 (Sep. 1991).	
	C6	DRMANAC, R., et al., "Prospects for a Miniaturized, Simplified and Frugal Human Genome Project," <i>Scientia Yugoslavica</i> 16(1-2):97-107 (1990).	
	C7	DRMANAC, R., et al., "Sequencing by Hybridization (SBH) with Oligonucleotide Probes as an Integral Approach for the Analysis of Complex Genomes," <i>Intl. J. Gen. Res.</i> 1(1):59-79 (1992).	
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	C9	DRMANAC, R., et al., "Sequencing by Oligonucleotide Hybridization: A Promising Framework in Decoding of the Genome Program," <i>The 1st Intl. Conf. Electrophoresis Supercomputing and the Human Genome</i>, Proceeding of the April 10-13, 1990 Conference, Florida State University (Cantor, C., and Lim, H., eds.).	

Examiner Signature	Date Considered
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Sheet **4** of **4****Complete if Known**

Application Number	09/786,896
Filing Date	January 16, 2002
First Named Inventor	WALT, David
Group Art Unit	1641
Examiner Name	Not Yet Assigned
Attorney Docket Number	A-67209-2/DJB/RMS/DCF/NHT (469420-18)

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

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	C10 *	FERGUSON, J.A., et al., "A Fiber-Optic DNA Biosensor Microarray for the Analysis of Gene Expression," <i>Nat. Biotechnol.</i> 14: 1681-1684 (Dec. 1996).	
	C11	FUH, M., et al., "Single Fibre Optic Fluorescence pH Probe," <i>Analyst</i> 112:1159-1163 (1987).	
	C12 *	HEALEY, B., et al., "Development of a penicillin biosensor using a single optical imaging fiber," <i>SPIE Proc.</i> 2388:568-573 (1998).	
	C13 *	HEALEY, B., et al., "Fiber Optic DNA Sensor Array Capable of Detecting Point Mutations," <i>Anal. Biochem.</i> 251:270-279 (1997).	
	C14 *	HEALEY, B., et al., "Improved fiber-optic chemical sensor for penicillin," <i>Anal. Chem.</i> 67(24):4471-4476 (1995).	
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	C17 *	MICHAEL, K., et al., "Making sensors out of disarray: optical sensors microarrays," <i>Proc. SPIE</i> 3270:34-41 (1998).	
	C18 *	MICHAEL, K., et al., "Randomly ordered addressable high-density optical sensor arrays," <i>Anal. Chem.</i> 70(7):1242-1248 (Apr. 1998).	
	C19	MIGNANI, A.G., et al., "<i>In vivo</i> biomedical monitoring by fiber-optic systems," <i>J. Lightwave Technol.</i> 13(7):1396-1406 (1995).	
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	C24 *	STRACHAN, N., et al., "A rapid general method for the identification of PCR products using a fibre-optic biosensor and its application to the detection of <i>Listeria</i>," <i>Lett. Appl. Microbiol.</i> 21(1):5-9 (Jul. 1995).	
	C25 *	WALT, D., "Fiber-optic sensors for continuous clinical monitoring," <i>Proc. IEEE</i> 80(6):903-911 (1992).	

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